Optimized Integration and Full Autonomy of the Land, Vegetation, and Ice Sensor for Global Hawk, ER-2, and WB-57

Completed Technology Project (2014 - 2015)

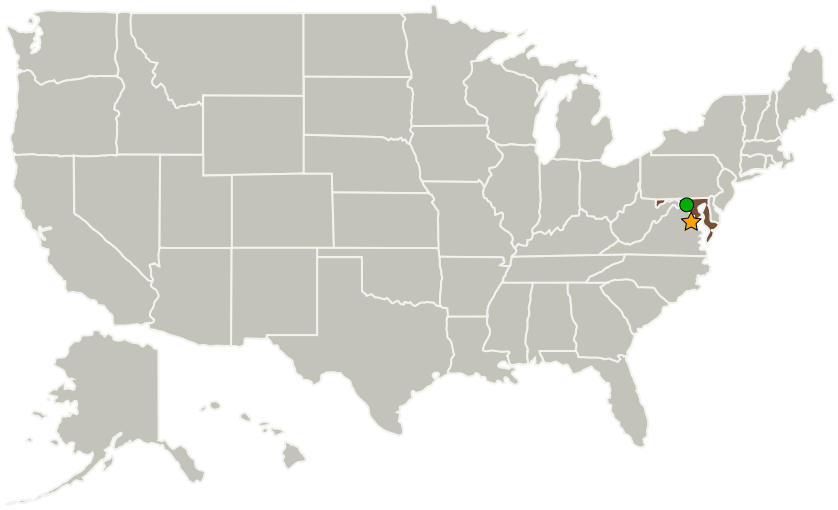
Project Introduction

Improve the compatibility of the LVIS-GH sensor with other sensors on the Global Hawk (GH) aircraft platform Reduce overall instrument mass Improve the data system throughput to allow for increased automation of surface tracking Redesign instrument layout for integration of the Applanix inertial measurement unit controller into optical enclosure to resolve dropout issue and reduce harness mass Re-evaluate thermal coolant loop system to optimize performance and reduce mass Re-assess compatibility with AFRC and Northrop Grumman

Anticipated Benefits

ICESAT-II

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
●Goddard Space Flight Center(GSFC)	Supporting Organization	NASA Center	Greenbelt, Maryland

Optimized Integration and Full Autonomy of the Land, Vegetation, and Ice Sensor for Global Hawk, ER-2, and WB-57

Table of Contents

Project Introduction	1
Anticipated Benefits	1
Primary U.S. Work Locations and Key Partners	1
Organizational Responsibility	2
Project Management	2
Technology Maturity (TRL)	2
Technology Areas	2
Target Destination	3

Optimized Integration and Full Autonomy of the Land, Vegetation, and Ice Sensor for Global Hawk, ER-2, and WB-57

Completed Technology Project (2014 - 2015)

Primary U.S. Work Locations

Maryland

Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

Project Management

Program Director:

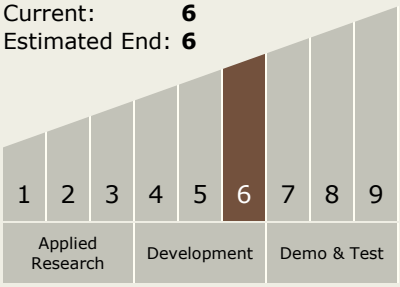
George J Komar

Principal Investigator:

James B Blair

Technology Maturity (TRL)

Start: **6**
Current: **6**
Estimated End: **6**



Technology Areas

Primary:

Continued on following page.

Optimized Integration and Full Autonomy of the Land, Vegetation, and Ice Sensor for Global Hawk, ER-2, and WB-57

Completed Technology Project (2014 - 2015)

Technology Areas *(cont.)*

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.4 Microwave, Millimeter-, and Submillimeter-Waves

Target Destination

Earth